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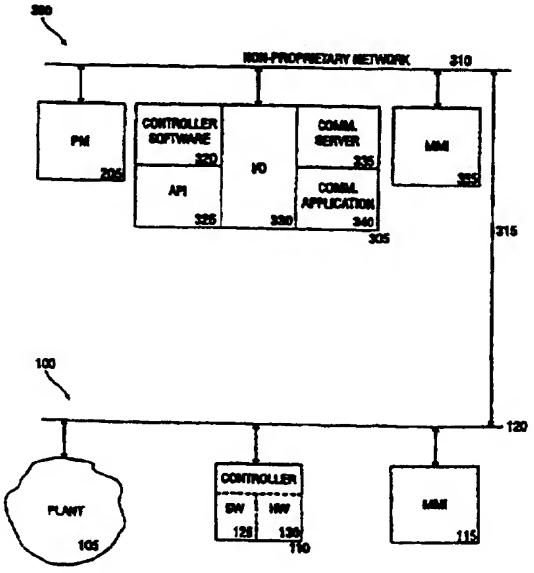
(54) Abstract Title
Real-time process control simulation method and apparatus

(57) An industrial plant controller device's control algorithm is ported from a real-time proprietary operating environment (an industrial control plant) to a non-proprietary environment such as an ethernet running TCP/IP. In combination with an application programmer's interface, the invention allows manipulation of the actual device controller's control algorithms including the capability to arbitrarily stop and start the controller algorithm's operation, exercise the controller algorithm at a rate slower and faster than real-time, restore the controller algorithm to a known state, and store the configuration of the algorithm controller state. The increased fidelity provided by the invention allows an operator to design, test, and verify control system strategies in a more comprehensive manner than possible in prior art systems. An added benefit of the invention is that it can be used in an improved operator training system.



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